

What is claimed is:

1 1. Fluid sealing apparatus for operation with an endoscopic instrument at
2 a surgical site, the apparatus comprising:

3 a body having a central bore dimensioned to receive an endoscopic
4 instrument therein, the bore extending through the body between distal and
5 proximal ends thereof;

6 an element disposed about the body near one of the distal and proximal ends
7 thereof for selectively expanding laterally outwardly about the body; and

8 a fluid seal disposed about the body near the other of the distal and proximal
9 ends having an aperture therethrough substantially aligned with the central bore
10 through the body, and having an inner dimension resiliently and flexibly disposed
11 to receive an endoscopic instrument therein in sliding fluid-sealing engagement
12 therewith.

1 2. The apparatus according to claim 1 in which the element includes a
2 balloon of substantially toroidal-shape attached to an outer surface of the body near
3 the distal end thereof; and comprising:

4 a fluid passage in a wall of the body in communication with the balloon and
5 extending along the wall toward the proximal end of the body for connection to a
6 source of fluid under pressure for selectively inflating the balloon.

1 3. The apparatus according to claim 1 in which the fluid seal includes a
2 generally toroidally-shaped member removably attached in fluid-sealing
3 engagement with the proximal end of the body.

1 4. An endoscopic surgical procedure performed through an access port,
2 the procedure comprising:

3 forming an incision in tissue;

4 dissecting tissue to form an anatomical space in tissue in communication
5 with the incision;

6 inserting the access port within the incision and anatomical space;

7 laterally outwardly expanding the portion of the access port inserted within
8 the incision to form fluid-sealing engagement with tissue about the incision;

9 inserting an endoscopic instrument into the anatomical space through the
10 access port;

11 forming a fluid-tight seal in the access port in response to insertion of the
12 endoscopic instrument in the access port;

13 insufflating the anatomical space with fluid under pressure during formation
14 of the fluid-tight seal; and

15 disabling a fluid-tight seal within the access port to permit deflating the
16 anatomical space inflated with fluid under pressure upon removal of an endoscopic
17 instrument from within the access port.

1 5. An access port kit including:
2 a body having a central bore therethrough between distal and proximal ends
3 thereof;
4 an element disposed about the body near the distal end thereof for
5 selectively expanding laterally outwardly from the body;
6 a plurality of resilient fluid seals, each selectively attachable to the proximal
7 end of the body for forming a fluid-tight seal with the body near the proximal end
8 thereof, each of the fluid seals including a resilient aperture therethrough of
9 selected different dimensions disposed to axially align with the central bore in the
10 body in position attached to the proximal end of the body.

1 6. An access port kit including:
2 a body having a central bore therethrough between distal and proximal ends
3 thereof;
4 an element disposed about the body near the distal end thereof for
5 selectively expanding laterally outwardly from the body;
6 at least one resilient fluid seal for attachment in fluid-tight engagement with
7 the body near the proximal end thereof, and including a resilient aperture
8 therethrough of selected dimension to axially align with the central bore upon
9 attachment to the body; and

10 an auxiliary resilient fluid seal for insertion within the resilient aperture of
11 the resilient fluid seal to form a fluid-tight seal therewith, including an aperture
12 therein of smaller dimension than the resilient aperture of the resilient gas seal for
13 forming a sliding, substantially fluid-tight seal about a cylindrical member of
14 sectional dimension larger than the aperture in the auxiliary resilient fluid seal and
15 smaller than the aperture in the resilient fluid seal.